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ABSTRACT

A study assessed the degree to which teachers in the Hidalgo-Starr Adult Education Coop in Texas support and practice the principles in the literature on adult education. During the project, 94 part-time teachers from the Hidalgo-Starr Adult Education Coop completed the Principles of Adult Learning Scale (PALS). (The PALS is a validated 44-item summated rating scale that is designed to provide an overall measure of the support of the collaborative teaching and learning mode and seven individual scores on factors comprising this mode.) While the mean score for the PALS is 146, the mean score of the Hidalgo-Starr Coop teachers was 134.3, indicating that 73 percent of those taking the PALS expressed stronger support of the collaborative mode than did the Hidalgo-Starr teachers. Based on an analysis of the teachers' scores by individual factors that comprise the collaborative mode, researchers recommended that administrators at the Hidalgo-Starr Coop organize inservice staff development activities focusing upon the cultural factors that shape the characteristics and learning processes of the Hispanic students studying at the coop as well as upon the concept of the learner-centered classroom and the role of the teacher as a facilitator rather than a giver of knowledge. (MN)

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# ANALYSIS OF SCORES ON PRINCIPLES OF ADULT LEARNING SCALE FOR PART-TIME FACULTY AND RECOMMENDATIONS FOR STAFF DEVELOPMENT ACTIVITIES

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The adult education literature endorses the collaborative teaching-learning mode as an appropriate method for assisting adults in the learning process. The supporters of the collaborative mode argue that the curriculum should be learner centered, that learning episodes should capitalize on the learner's experiences, that adults are self-directed, that the learner should participate in needs diagnosis, goals formation, and outcomes evaluation, that adults are problem-centered, and that the teacher should serve as a facilitator rather than a repository of facts. While the literature does not delineate the degree to which each of these elements should be practiced in the various specific situations within various adult education settings, a knowledge of the staff's degree of acceptance and practice of the principles discussed in the literature can be valuable information to an administrator for purposes of program and staff development planning.

To assess the degree to which the teachers in the Hidalgo-Starr Adult Education Coop support and practice the principles in the adult education literature, all teaching staff were asked to complete the Principles of Adult Learning Scale (PALS). This valid and reliable 44 item summated rating scale provides an overall measure of the support of the collaborative mode and seven individual scores on factors composing this mode (Conti, 1979; Conti, 1983). Ninety-four teachers completed the instrument. Of these 60 were experienced teachers; 28 were new to the coop; and six were former teachers. All but two were part-time instructors in the nonlearning center sites.

One of the most striking findings of the analysis of the responses of the Hidalgo-Starr Coop teachers to PALS was the low mean score for the total group. The mean score for PALS is 146 with a standard deviation of

20. The mean score for the Hidalgo-Starr Coop teachers, however, was 134.3. The mean for this coop is over one-half standard deviation below the normally expected mean. To be exact, since it is 12 points below the mean and since the standard deviation is 20, it is .6 (12 ÷ 20 = .6) below the mean. A score of 134 is at the 27 percentile indicating that 73% of those taking PALS express stronger support of the principles in the literature than the Hidalgo-Starr Coop teachers.

The impact of this score is further intensified by comparing it to the scores of other groups on PALS. The normative scores for PALS are based on cases drawn from a variety of institutional settings in different areas of the United States. These include educators from full and part-time ABE programs, allied health personnel, training directors, and cooperative extension agents in Illinois, Wisconsin, Washington, and Texas. The six groups that made up this diverse sample of 778 showed no significant difference in their response to PALS. The Hidalgo-Starr staff response, however, is significantly different statistically from that of all other groups. This indicates that the coop teachers support and practice teacher-centered behaviors to a greater degree than would be expected in an adult education setting. While this may be an effect of the predominant Hispanic culture in the Rio Grande Valley, this study investigated various other factors that may have influenced the scoring of the staff.

To more closely examine the responses, crosstabulations were calculated between the scores on PALS and teacher's degree, teacher's age, amount of inservice, formal training in adult education, amount of adult education courses, teacher's sex, and years of experience. In the breakdowns, 77 teachers scored below the instrument's mean of 146. They were grouped as follows:

| Standard Deviations Below the Mean | Number of Teachers in Group |
|---|---|
| 0 to .5 | 18 |
| .5 to 1.0 | 29 |
| 1.0 to 1.5 | 18 |
| 1.5 to 2.0 | 11 |
| Over 2.0 | 1 |

Only 17 of the 94 scored above the mean. These were grouped as follows:

| Standard Deviations Above the Mean | Number of Teachers in Group |
|---|---|
| 0 to .5 | 8 |
| .5 to 1.0 | 6 |
| 1.0 to 1.5 | 3 |

A difference, which was almost statistically significant, was noticeable when examining the academic degree held by the teacher ($p$ = .07). All of the teachers with a bachelors degree or less scored below the mean. This included 24 teachers, and 11 of these were a full standard deviation or more below the expected mean. However, of the total group of 77 teachers who were below the mean, nearly 40% had a masters degree. In addition, the teacher with the lowest score in the sample had a masters degree. This is contrasted to the group scoring above the mean. Over 82% of this group held a masters degree, and all 17 of this group had credits beyond the bachelors degree. Thus, while additional graduate training does not guarantee a greater receptivity to the collaborative mode, this analysis does indicate a greater propensity (which is supported by a Pearson correlation of .32 that is significant at p = .001) for those with the higher PALS score to be located among those with graduate training. This study did not elicit the nature of the graduate training, and this may be an important factor affecting the teacher's acceptance of the principles in the literature.

The grouping of the teachers by age did not indicate a difference in the scoring on PALS ($p$ = .62). Nevertheless, the crosstabulation of score by age revealed that 20 of the 21 teachers under 30 scored below the mean. Of those 17 scoring above the mean on PALS, 11 were in their thirties.

The amount of inservice training did not produce a significant difference ($p$ = .43). In addition, a low correlation (r = .14; p = .09) was found between inservice training and response on PALS. The most noteworthy observation of this crosstabulation is the large number of teachers in the coop with a limited amount of inservice training. An even 50% have 20 hours or less of inservice, and 68% have less than 40 hours. This is perhaps an indication of high turn over in adult education and a reflection of the limited amount of teaching experience for many in adult education.

A more grievous observation rests with the group who has had extensive inservice. Of the 30 teachers with more than 40 hours of inservice, 23 scored below the mean on PALS. Although 14 of the 30 have had over 80 hours of inservice, 10 scored below the mean. This observation is contrary to the finding of other research using PALS in which Douglass (1982) found that increased formal training in adult education was associated with higher scores on PALS. It also indicates that past inservice activities have not led to an increased acceptance of the field's theory base by the teachers who have remained in the employment of the coop.

The amount of experience in adult education did not affect the teachers' score on PALS ($p$ = .82). Likewise, the scores on PALS were rather evenly distributed when analyzed in relationship to total years of teaching experience in all fields of education ($p$ = .32). In this study, the lack of influence of experience in the field may have been influenced by the fact that over 76% of the sample had less than five years experience

in adult education.

The analysis of the impact of formal training in adult education graduate courses was distorted by the fact that over 80% had never taken an adult education course. Yet the increase in PALS score which Douglass (1982) found in his study was not present in this case. Of the group of 18 who had formal training in adult education, 14 scored below the mean for PALS.

Finally, the scores were broken down by the sex of the teacher. There was no significant difference in the PALS score due to sex ($p$ = .78). In this sample nearly 60% of the teachers were female.

## FACTOR ANALYSIS OF TEACHER SCORES

In addition to providing an overall measure of the degree to which teachers accept and practice the collaborative mode which is widely supported in the adult education literature, PALS yields seven individual factor scores (Conti, 1983). These factor scores indicate the degree to which the teachers support the seven major elements which compose the collaborative mode. By analyzing these scores, it is possible to identify specific areas for targeted staff development activities.

Factor 1 deals with Learner-Centered Activities. Although the norm for this factor is 38, the mean for the Hidalgo-Starr Coop teachers was only 32.87. This is over .6 standard deviations below the mean and indicates that the coop teachers are at the 27 percentile rating. Thus, as a group the teachers in the coop support classroom actions that are teacher-centered. They believe that the teacher should be in firm control of the planning and directing of classroom activities and that the students actions should be behaviors which respond to the directives of the

teacher.

The scores on this factor suggest two staff development activities. The first relates to the cultural setting. Acceptance and respect of authority is generally accepted as a characteristic of the Hispanic culture. This may also be reinforced by the pervasive influence of the Catholic Church in the region. These influences combined with the depressed economic conditions in the Valley may have contributed to an exalted position for education in the cultural milieu. All of these conditions can combine to produce both students who are more accepting of authority and teachers who view the exercise of authority as a natural part of the teacher's role. The planners of staff development activities need to determine the degree to which they wish to challenge these cultural barriers and to which they wish to bring them into congruence with the principles in the adult education literature. Once this decision has been made, equally serious and difficult decisions will need to be made concerning activities to accomplish this purpose. Useful activities might center around small group activities in which the cultural set of the Valley is discussed. The dominant characteristics of the culture should be identified. The advantages and disadvantages of implementing these cultural norms in the ABE classroom should be discussed. This discussion could be aided by the introduction of information from adult education resources relating to the conditions under which ABE students learn best. This would also be an appropriate time to focus on the role of the learner's self-concept and the importance of creating an environment in which the learner can take risks, experiment, and experience nonpunishing error as a natural part of learning. Resources for this activity could be either outside consultants, written or audio-visual materials, or peers who have

done some reading and thinking on the topic. *The Last Gamble on Education* (Mezirow, Darkenwald, & Knox, 1975), *Freedom to Learn* (Rogers, 1969), and *Unearthening Seeds of Fire* (Adams, 1975) are potential written resources.

Before undertaking this activity the planners should realize that this is a values clarification activity for the teachers. Therefore, some resistance may exist. In addition, it may be a very slow process and may not be suitable as an activity at a large one-day inservice. Finally, it will require a sensitive facilitator. Hence, to conduct this activity the format for staff-development training in the coop may have to be altered. Instead of having a mass workshop, the trainers (perhaps the Director and Assistant Director of the coop) may visit the various schools throughout the semester and conduct these activities.

The second activity focuses on content without consideration of potential cultural implications. Many teachers may not know or understand the meaning of a learner-centered classroom. Information for describing this concept to them can be gleaned from the writing of Dewey, Lindeman (1961/1926), Bergevin (1967), and Kidd (1976). Candid discussion of the teacher's role being a facilitator rather than a giver of knowledge could be beneficial. This concept of the teacher's role is discussed in *The Modern Practice of Adult Education* (Knowles, 1970), *Unearthing Seeds of Fire* (Adams, 1975), and *Pedagogy of the Oppressed* (Freire, 1970). Since the full-time learning center teachers tend to implement this concept, they could be ideal resource people for directing this staff development activity.

All of the activities for Factor 1 relate to an analysis of authority. Learner-centered activities require the teachers to give up some of their traditional power and invest it in the student to increase the stu-

dent's responsibility for his/her own learning. This necessitates that the teacher analyze his/her own educational philosophy, and it may require the questioning of the established social order. The goal of this approach should not be to indoctrine teachers. Rather, it should be to encourage them to better understand their educational philosophy and to understand the reasons for the wide support of a learner-centered approach in the adult education literature.

In relating the teachers' responses to PALS, it can be pointed out that as a group they placed a strong emphasis on evaluation by formal testing. They tended to compare students to outside standards such as standardized tests and expected them to conform to traditional middle class values. They also supported the use of a single teaching style, which in itself limits the flexibility of the student. In addition, they indicated a need to control the classroom by means of quiet deskwork, disciplinary action, and the determination of the learning objectives by the teacher. While many may argue that the situational factors of the ESL, ABE, and/or GED classroom require these to a degree, the discussion needs to remain focused on the impact of these situations on the location of authority for curriculum formation and self-directed learning in the classroom. Teachers need to realize that the acceptance of these concepts leads directly to a teacher-centered environment. The teachers of the coop also need to be made aware that they overwhelmingly accept these concepts. Additional staff development activities could revolve around analyzing these topics and relating them to the world outside the classroom. For example, just because the student is preparing to take the formal and standardized GED Test, s/he does not have to be evaluated on learning progress in the classroom by formal testing. Teachers should be taught to use a formal instru-

ment like the Practice GED Test as a helpful device for learning test taking skills, building confidence, assessing strengths and weaknesses, and counseling students. Likewise, even though the structure of the GED Test determines some of the instructional objectives, the teachers should allow students to have input into their overall educational objectives. With skill in linking these two types of objectives, both teaching and learning can be easier. Thus, as these two examples indicate, the assumption of the teacher-centered classroom need to be analyzed and evaluated. Serious thought on these should indicate that in adult education more efficient and effective learning can be accomplished by means of more learner-centered activities.

Factor 2 deals with Personalizing Instruction. The norm for this factor is 31, but the teachers of the coop averaged 29.18. Thus, they ranked at the 41 percentile in their acceptance and practice of personalizing instruction for each individual student. While the scores on this factor are not as low as on Factor 1, staff development activities should be planned in this area.

Training activities to increase the personalization of instruction can involve units dealing with self-pacing, infusing variety into the classroom, and relating objectives to the individual. A unit on self-pacing could include two parts. First, theoretical support from the adult psychology and aging literature for the concept of allowing self-pacing by the adult learner should be provided. Because of the aging process and individual differences, a randomly assembled group of students will have a wide range of learning rates. While their speed will vary, power (i.e., the ability to learn) will still exist. McClusky (1976) discusses this in his Power/Load Theory. Both Schaie (1975) and Bischof (1969) relate the

rate of learning to the aging process. In a more general manner, Knowles (1970) and Kidd (1976) discuss the importance of allowing learners to work and progress at their own individual pace.

The second part of the self-pacing unit should focus on ways of organizing the classroom to facilitate and accommodate self-pacing. This will require instruction in utilizing a variety of methods and materials. Texts on methods include Bergevin's (1963) *Adult Education Procedures* and Seaman's (1977) *Adult Education Teaching Techniques.* Klevin's (1972, 1976, 1983) series on *Methods and Materials* may also prove helpful. However, the recommended source for expertise in this area is the Adult and Extension Education faculty at Texas A&M University. Materials creation and collection can be assisted by referring to Bowren's (1977) *Teaching Reading in Adult Basic Education,* reports and products from past 309 and 310 projects, the competency based adult education materials, and materials provided by publishers. Once again, however, the most productive route may be a human source. A consultant such as Dr. Bonnie Longnion or Ms. Zena Taylor could conduct training workshops. Many teachers in the coop may have already created excellent materials. If so, sessions could be scheduled to provide them opportunities to share these. Finally, Texas A&M has developed a complete training module on this topic for ABE teachers.

The potentiality of achieving a change in personalizing instruction is directly related to Factor 1 - Learner-Centered Activities. Self-pacing is facilitated when the learning objectives are based upon the individual's motives and abilties. This increases the student's ownership of and responsibility for learning. Personalizing instruction is thus one manifestation of a learner-centered environment.

Factor 3 is Relating to Experience. The norm for this factor is 21,

and the mean for the coop was 20.87. This 50 percentile score indicates a normal spread in the group in terms of focusing on problem solving, utilizing prior experiences, and relating learning to everyday life. Because of the other training needs indicated by this survey, sessions in this area should not be a staff development priority for this group of teachers.

Factor 4 relates to Assessing Student Needs and has a norm of 14. The coop score of 13.44 ranks at the 40 percentile. Concepts in this factor are closely related to research findings from a study which contained a large sample from the Valley. From interviews conducted with nearly 100 adults, Fellenz, Conti, and Brekelbaum (1981) concluded that the feeling of being treated as an adult is closely related to needs assessment. In this study, the interviewees tended to view the teachers as treating them in an adult fashion when the teachers found out what they needed to learn and then planned the educational program around these needs. Staff development activities which share techniques for conducting individual conferences, which teach informal counseling skills, and which develop techniques for involving the student in the diagnostic process can help teachers implement this view of treating learners as adults. Several of the Texas A&M teacher training modules address various skills needed in assessing needs. Bowren's (1977) *Teaching Reading in Adult Basic Education* contains a section on methods of assessing reading needs.

Factor 5 relates to Climate Building. The coop's score of 14.68 is below the norm of 16 and ranks at the 36 percentile. In *The Modern Practice of Adult Education,* Knowles (1970) lists this as the primary step in the educational process. It is generally accepted that this is one of the most important elements of adult education. Meizrow, Darkenwald, and Knox (1975) point out in the *Last Gamble on Education* that adults typically enter

the ABE enterprise with negative attitudes and/or experiences related to organized educational programs. In addition, Anderson and Niemi (1970) emphasize in *Adult Education and The Disadvantaged Adult* that adults return to ABE with a wide array of sociological and psychological barriers. Staff development activities in this area can focus on the nature of these barriers and on the importance of setting a warm and receptive climate for the student during the *first* hour of the student's contact with the program. New students should be given a tour of the facilities, shown the resources available, informed of the available supportive services, and informed of the kinds of things they can expect to learn. The purpose of diagnostic testing should be explained, and this testing should be painless. The presentation of the test results should be used as an opportunity for informal counseling.

Other activities in this area should focus on the variety of things teachers can do in the classroom to maintain an adult and open learning environment. The importance of allowing the learner to exercise self-control through noncontrolled breaks and through forming peer learning/tutoring groups should be pointed out to the teachers. The study by Fellenz,Conti, and Brekelbaum (1981) also found that the ABE classroom functions as a microcosm of the general society for the student's practicing of interpersonal skills. Teachers need to be aware of this so that they can allow and facilitate both structured and unstructured interaction among the students. In addition, training activities can deal with methods for capitalizing on existing competencies to eliminate barriers and to reduce apprehensions by creating an environment which accepts errors as a natural part of the learning process. Specific training activities for these concepts can be found in the Texas A&M module on climate building

and in volumes of the *Annual Handbook for Facilitators* by Pfeiffer and Jones (1972-1983).

Factor 6 is Participation in the Learning Process. The coop score of 12.98 is congruent with the norm of 13 for this factor and ranks at the 50 percentile. There is, thus, a normal distribution among the teachers concerning the degree to which they allow student self-direction in selecting content, evaluating performance, and identifying problems. While this is encouraging in relationship to the low scores on several other factors, it is surprising that this factor is not correlated with Factor 1 which deals with learner-centered activities. Although the teachers expressed a desire for a high degree of control over the students and the learning environment in Factor 1, they do not view student autonomy in selecting criteria for evaluating performance, topics for learning, or problems to be solved as infringements upon their authority. This knowledge can help direct the activities in Factor 1. It can be pointed out that learner-centered means more than just giving the students some choices and self-direction on curricular items. It includes creating a comprehensive environment in which authority is shared by both the teacher and student. This democratic situation involves negotiation and avoids the imposition of the teacher's will on the students.

Factor 7 deals with Flexibillity for Personal Development. The teachers' average score of 10.28 is significantly below the norm of 13 and ranks at the 25 percentile. These scores indicate that the teachers view their role as providers of knowledge. They are the agents who possess the knowledge which the students must learn. To pour this knowledge into the students, they feel that it is necessary to maintain a disciplined classroom, stick to the objectives which they originally formulated, and avoid

the discussion of value issues. These practices are contrary to the principles widely supported in the adult education literature. Kidd (1976) addresses this topic in *How Adults Learn* and argues that a major function of adult education should be in helping adults in the developmental process of "being" and "becoming". Rogers (1969) and other supporters of the humanistic philosophy support an emphasis in education on personal development. Content for staff development activities on this philosophical approach to education can be found in Elias and Merriam's (1980) *Philosophical Foundations of Adult Education,* the second chapter of Darkenwald and Merriam's (1982) *Adult Education: Foundations of Practice,* and Ozmon and Craver's (1981) *Philosophical Foundations of Education.* This content could be personalized with individual analysis of PALS scores.

The issue of flexibility for personal development could also be addressed by workshop sessions based on the findings of the study by Fellenz, Conti, and Brekelbaum (1981). This research project indicated that many leaders in ABE feel that the most important goals for ABE should be to help the students meet their goals and to improve their skills in such areas as problem solving and interpersonal relationships. It further found that far more than academic learning was taking place in the ABE classroom. A knowledge of these findings could increase the teacher's awareness of the need for facilitating personal development in the ABE setting.

Finally, observations indicate that a large degree of flexibility for personal development exists in the full-time learning centers in McAllen. Consequently, the staff from this center may be used in staff development workshops to share techniques with other teachers for facilitating personal development in the classroom. In order to see this concept in action, teachers could be required to visit the learner-center while stu-

dents are present and to identify factors in the center which may help students in this area.

## SUMMARY

The Principles of Adult Learning Scale was used to measure the degree to which the part-time teachers in the coop supported and practiced the principles in the adult education literature. The average score for these teachers indicates that they tend to reject the collaborative teaching-learning mode which is generally accepted in the literature as the most appropriate mode for assisting adults. An analysis of these scores by the individual factors which compose the collaborative mode provided several recommendations for staff development activities to make the teachers more aware of the major concepts in the adult education literature.

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